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| <b>Office Action Summary</b>  | Application No.<br>09/720,122        | Applicant(s)<br><b>Miwa</b> |
|   | Examiner<br><b>Michael Colaianni</b> | Art Unit<br><b>1731</b>     |
| <i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>  |                                      |                             |
| <b>Period for Reply</b><br>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. <ul style="list-style-type: none"> <li>- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.</li> <li>- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).</li> <li>- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul> |                                      |                             |
| <b>Status</b> <p>1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Feb 13, 2003</u></p> <p>2a) <input type="checkbox"/> This action is <b>FINAL</b>.      2b) <input checked="" type="checkbox"/> This action is non-final.</p> <p>3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11; 453 O.G. 213.</p>   |                                      |                             |
| <b>Disposition of Claims</b> <p>4) <input checked="" type="checkbox"/> Claim(s) <u>16-37</u> is/are pending in the application.</p> <p>4a) Of the above, claim(s) _____ is/are withdrawn from consideration.</p> <p>5) <input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6) <input checked="" type="checkbox"/> Claim(s) <u>16-37</u> is/are rejected.</p> <p>7) <input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p>8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.</p>   |                                      |                             |
| <b>Application Papers</b> <p>9) <input type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10) <input type="checkbox"/> The drawing(s) filed on _____ is/are a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner.<br/>Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p> <p>11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner.<br/>If approved, corrected drawings are required in reply to this Office action.</p> <p>12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>  |                                      |                             |
| <b>Priority under 35 U.S.C. §§ 119 and 120</b> <p>13) <input checked="" type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).<br/>a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input checked="" type="checkbox"/> None of:<br/>1. <input type="checkbox"/> Certified copies of the priority documents have been received.<br/>2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.<br/>3. <input checked="" type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p>   |                                      |                             |
| <p>*See the attached detailed Office action for a list of the certified copies not received.</p> <p>14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).<br/>a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.</p> <p>15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>  |                                      |                             |
| <b>Attachment(s)</b> <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____</p> <p>4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____</p>   |                                      |                             |

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\*\*\*\*\*PLEASE NOTE THAT THE CLAIM NUMBERS REFERRED TO IN THIS OFFICE ACTION ARE THE RENUMBERED CLAIMS 16-37. APPLICANT'S AMENDMENT FILED FEBRUARY 13, 2003 MENTIONED CANCELLING CLAIMS 1-22 WHICH WERE FILED IN PRELIMINARY AMENDMENT FILED ON DECEMBER 21, 2000. DUE TO THE IMPROPER CANCELLATION AND RENUMBERING OF CLAIMS IN THAT PRELIMINARY AMENDMENT, THE CLAIMS 1-22 WERE NEVER ENTERED. THUS, ORIGINAL CLAIMS 1-15 HAVE BEEN CANCELLED AND THE CLAIMS FILED IN THE AMENDMENT FILED ON FEBRUARY 13, 2003 HAVE BEEN RENUMBERED AS CLAIMS 16-37. THUS, CLAIM 23 IS NOW CLAIM 16, ETC. THE DEPENDENCY OF THE CLAIMS WAS CHANGED TO CORRESPOND TO THE RENUMBERING.\*\*\*\*\*

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 30, 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30, a method claim, depends from claim 26, a composition claim, which is confusing and improper.

Claim 32, line 4, "monobutyl" is misspelled.

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***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 16-18, 21-24 and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Gimm et al. 5281350.

Gimm et al. teach a composition having 9.6% fluoride; 22.17% water and 30.7% glycerine (col. 4, lines 10-25). Gimm et al. teach using sugar (sucrose) as a gelling agent (col. 2-3, lines 65-68, 1-5). Gimm et al. also teaches including a dye in the composition for printing (col. 3, lines 50-55). Gimm et al. also teaches using ammonium bifluoride (col. 4, lines 13-14).

Gimm et al. teach a method of etching glass including the steps of cleaning the glass and drying it; masking the glass surface; dipping the glass into the etchant; and cleaning the glass surface again with water (col. 3, lines 24-45).

Gimm et al. also teaches using a gelling agent (col. 2-3, lines 65-68, 1-5, the flow modifier acts as a gelling agent).

Gimm et al. also teaches silk screen printing as a means for masking the glass substrate (col. 3, lines 50-55).

5. Claim 16. 22/16, 23/16, 24/16, 33/24/16 are rejected under 35 U.S.C. 102(b) as being anticipated by Brink 4897213.

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Brink teaches an etching composition having 11.2% ammonium bifluoride; 18.7% denatured alcohol or ethanol; and 70.1% water (claim 1). Because Brink teaches a composition which is identical to applicant's it must have the same properties as applicant's and would be usable to etch glass as well as stone.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 17, 20, 24, 25, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gimm et al. 5281350 in view of Rhodenbaugh 4921626.

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Gimm et al. teaches applicant's claimed invention. See the §102(b) rejection for Gimm et al.'s teachings. However, Gimm et al. do not teach the subject matter of claims 17, 20, 24, 25 and 31.

However, Rhodenbaugh teaches that it is well known to use a xanthan gum gelling agent with the glass etching composition (col. 1, lines 29-31). Moreover, Rhodenbaugh teaches that it is known to adjust the pH of the glass etching composition using citric or phosphoric acid (col. 2, lines 14-23). Rhodenbaugh also teaches that a propylene glycol may be used as the water-miscible solvent (col. 1, lines 33-34).

It would have been *prima facie* obvious at the time the invention was made to combine Rhodenbaugh's teachings with Gimm et al.'s etching composition because both Gimm and Rhodenbaugh's composition are very close in composition and using the xanthan gum and other components would permit better deposition control of the etchant by controlling the viscosity of the etchant composition. Rhodenbaugh teaches that xanthan gum is used to control viscosity of the etchant (col. 2, lines 10-13).

9. Claims 19, 26, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gimm et al. 5281350 in view of Dillarstone et al. 4181623.

Gimm et al. teaches applicant's claimed invention. See the §102(b) rejection for Gimm et al.'s teachings. However, Gimm et al. do not teach using a surfactant.

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However, Dillarstone et al. teach that it is well known in the etchant composition art to use anionic (such as dodecylbenzene sodium sulfonate) and non-ionic surfactants (col. 2, lines 7-25, col. 3, lines 24-40).

It would have been prima facie obvious at the time the invention was made to combine Dillarstone's teachings with Gimm et al.'s etchant composition because such surfactants would provide for better wetting of the substrate to be etched and would also provide for better smoothing of the etchant over the surface.

10. Claims 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gimm et al. 5281350 in view of Dillarstone et al. 4181623 and Siklosi 4287080.

Gimm et al. in view of Dillarstone teach applicant's claimed invention. See the 103(a) rejection above. However, neither Gimm et al. nor Dillarstone teach the subject matter of claims 36-37.

However, Siklosi teaches that it is well known to use any number of surfactants, including ampholytic and cationic surfactants to effect a better wetting of the substrate being treated (col. 9, lines 4-17, col. 10, lines 20-34).

It would have been prima facie obvious at the time the invention was made to combine Siklosi's teachings with Gimm et al. in view of Dillarstone because doing so would make Gimm et al. in view of Dillarstone's composition more versatile and increase the versatility of the composition.

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11. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gimm et al. 5281350 in view of Rhodenbaugh 4921626 and Yokoya et al. 4985323.

Gimm et al. in view of Rhodenbaugh teach applicant's claimed invention. See the 103(a) rejection above for Gimm et al. in view of Rhodenbaugh's teachings. However, neither Gimm et al. nor Rhodenbaugh teach the subject matter of claim 32.

However, Yokoya et al. teach that it is known to use ethylene glycol monomethyl ether as a solvent in making printing compositions (col. 64, lines 34-41).

It would have been *prima facie* obvious at the time the invention was made to combine Yokoya et al.'s teachings with Gimm et al. in view of Rhodenbaugh's etching composition because Rhodenbaugh teaches that any other dispersing or wetting agent (i.e. solvent) can be used with his etchant and Yokoya et al. teaches that glycol ethers are well known solvents.

### *Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7115.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



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February 28, 2003

**MICHAEL COLAIANNI  
PRIMARY EXAMINER**



UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/720,122      | 12/21/2000  | Hiroshi Miwa         | 1001-0010           | 7635             |

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EXAMINER

COLAIANNI, MICHAEL

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Please find below and/or attached an Office communication concerning this application or proceeding.